



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/844,709      | 04/30/2001  | Mohan L. Sanduja     | 1067-107            | 3925             |

23117 7590 05/26/2004  
NIXON & VANDERHYE, PC  
1100 N GLEBE ROAD  
8TH FLOOR  
ARLINGTON, VA 22201-4714

EXAMINER

REDDICK, MARIE L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 1713     |              |

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/844,709

Applicant(s)

SANDUJA ET AL

Examiner

Judy M. Reddick

Art Unit

1713

2015

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 1/6/03;4/8/03;10/6/03;11/4/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-16,26,27 and 34-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-16,26,27 and 34-37 is/are rejected.
- 7) ☒ Claim(s) 15 & 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2,6,11,5 & 12-14.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

**Response to Amendment**

1. The amendment filed 01/06/03 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: On at least pages 10 & 19, the newly added limitation "sodium metabisulfite"; as far as the Examiner can tell, is not supported by the original disclosure and, as such, introduces a New Matter situation.

Applicant is required to cancel the new matter in the reply to this Office Action.

**Information Disclosure Statement**

2. The information disclosure statements filed 04/08/03; 10/06/03 & 11/04/03 have been considered and placed in the application file. A 2<sup>nd</sup> copy of the initialed Information Disclosure Statements filed on 05/30/01 & 08/10/01 are also attached per applicant's request.

**Claim Objections**

3. Claims 15 and 16 are objected to because of the following informalities: It is believed that "bacteriacide" should properly read "bactericide". Appropriate correction is required.

**Claim Rejections - 35 USC § 112**

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:  
  
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
5. Claims 14, 27, 36 & 37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which

Art Unit: 1713

was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. As far as the Examiner can tell, no express support can be found for the limitation "sodium metabisulfite" and this, as such, engenders a New Matter situation.

**Claim Rejections - 35 USC § 102**

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 8-16, 26, 27 and 34-37 are rejected under 35 U.S.C. 102(b or e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Horowitz(U.S. 3,401,049, as applied to claims 8-10, 12-16 & 34), Horowitz et al(U.S. 5,232,748) or Sanduja et al(U.S. 6,368,369).

Each of Horowitz, Horowitz et al and Sanduja et al teach and exemplify coating compositions defined basically as containing a grafting solution of a) a monomer or prepolymer, b) isopropyl alcohol, water, a catalyst and a graft initiator wherein, the monomer or prepolymer

includes (meth)acrylates such as hydroxy ethyl methacrylate, acrylamide, 2-acrylamido-2-methyl propane sulfonic acid(AMPS, Horowitz et al and Sanduja et al), the catalyst includes ammonium persulfate, hydrogen peroxide, etc. and the graft initiator includes silver nitrate. See, e.g., the Abstract, col. 2, lines 27-72, col. 3, lines 1-57 and the Runs of Horowitz, the Abstract, cols. 1-3 and the Runs of Horowitz et al and the Abstract, col. 3, lines 45-67, col. 4, lines 1-35, col. 5, lines 3-27 of Sanduja et al. Each of Horowitz, Horowitz et al and Sanduja et al(provided for by virtue of 102(e)) therefore anticipate the instantly claimed invention with the understanding that the compositional components of patentees overlap in scope with the claimed compositional components, in both character and content and with the understanding that the “catalyst” per claims 8, 26 and 27, the “prepolymer” per claims 9, 26 & 27 and the bactericide per claim 15 are not required components of the claimed composition. All of the remaining dependent claim limitations appear to be met by patentees, suggested by patentees or would have been obvious to the skilled artisan and with a reasonable expectation of success.

While it appears that only Sanduja et al teach the use of the disclosed composition for the chemical grafting of a fuel, the use of the compositions of Horowitz and Horowitz et al for the chemical grafting of an oil, fuel, coolant or air filter material would be expected since the compositions of Horowitz and Horowitz et al are essentially the same as the claimed composition. The onus to show that this, in fact is not the case, is shifted to applicants. It is well settled that when a claimed product reasonably appears to be substantially the same as a product disclosed in the prior art, the burden of proof is on the applicants to prove that the prior art product does not inherently or necessarily possess the characteristics attributed to the claimed product. See *In re Spada* 15 USPQ 2d 1655 (CAFC 1990).

Even if it turns out that the Examiner has somehow missed the boat and the claims are not anticipated, it would have been obvious to the skilled artisan to extrapolate, from the disclosures of each of Horowitz, Horowitz et al and Sanduja et al the precisely defined coating composition, as claimed, as per such having been within the purview of the general disclosures of patentees and with a reasonable expectation of success.

Art Unit: 1713

**Response to Arguments**

9. Applicant's arguments, see paper no. 11, filed 01/06/03, with respect to the rejection(s) of claim(s) 8-16, 26 & 27 under 35 U.S.C. 102(b)/103(a) over Magat et al, Yoshida et al or Liao et al have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Horowitz, Horowitz et al or Sanduja et al as set forth supra.

**Conclusion**

10. The additional prior art listed on the attached FORM PTO 892 is cited as of interest defined basically as containing grafting solutions of a monomers, prepolymers, catalysts and other ingredients. A rejection based on this prior art may be made in the future. A rejection is not being made at this time since a viable rejection exists on the record.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy M. Reddick whose telephone number is (571)272-1110. The examiner can normally be reached on Monday-Friday, 6:30 a.m.-3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Judy M. Reddick*  
Judy M. Reddick  
Primary Examiner  
Art Unit 1713

JMR *JMR*  
05/19/04